

Inn at USC Wyndham Garden Columbia,  
1619 Pendleton St.  
803-779-7779

Sheraton Downtown Columbia Hotel,  
1400 Main St.  
803-988-1400

Staybridge Suites,  
1913 Huger St.  
803-451-5900

SpringHill Suites by Marriott,  
511 Lady St.  
803-978-2333

## Parking

Please visit the University of South Carolina web site:  
[https://sc.edu/study/colleges\\_schools/moore/about\\_the\\_moore\\_school/visit\\_the\\_moore\\_school/index.php](https://sc.edu/study/colleges_schools/moore/about_the_moore_school/visit_the_moore_school/index.php)

## Cell Apoptosis Social

The Cell Apoptosis Social will be held 6:00 PM – 8:00 PM at 1801 Hunter-Gatherer Brewery & Alehouse located only 10 minutes from the University of South Carolina at 900 Main Street, Columbia, SC 29201 (Phone: 803-748-0540). For more details, please see the web site: <http://huntergathererbrewery.com/>.

## Symposium Banquet

The Symposium Banquet will be held 6:00 PM – 8:00 PM at 1801 Grille restaurant located only 10 minutes from the University of South Carolina at 700 Lincoln Street, Columbia, SC 29201 (Phone: 803-777-1801). For more details, please see the web site: <https://1801grille.com/>.

## Registration

The symposium poster deadline is November 15, 2017. You can register at the ISCB Student Regional Group - Southeast USA web site: <http://rsg-se-usa.iscb-sc.org/>

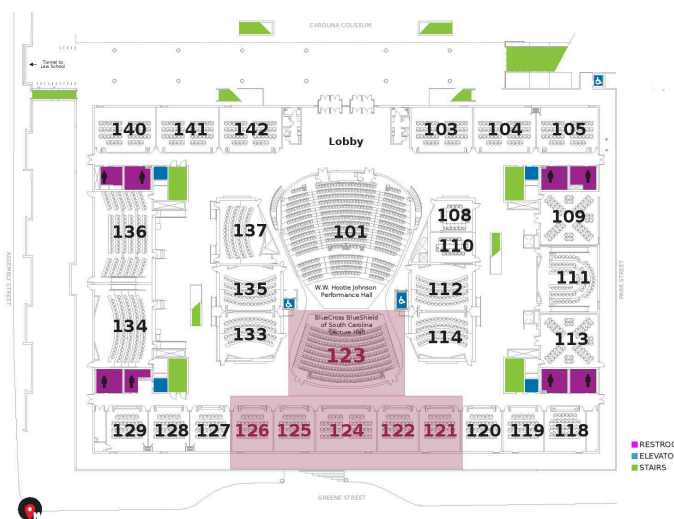
## Organizers

Geetha Saarunya <sreeramc@email.sc.edu>

Miles McCabe <mpmccabe@mail.usf.edu>

Brittany Lasseigne <blasseigne@hudsonalpha.org>

Leon Hardy <leonhardy@mail.usf.edu>



## 2017 ISCB Student Regional Group - Southeast USA Computational Biology Symposium

University of South Carolina  
Darla Moore School of Business  
DMSB 124  
1014 Greene Street  
Columbia, SC 29208

December 8 – December 9, 2017

## Overview

On behalf of the organization committee, I would like to welcome each of you to the 1<sup>st</sup> annual ISCB Regional Student Group-Southeast USA Symposium held at the University of South Carolina. The theme of this meeting is to promote, educate and provide opportunities for the next generation of scientist in the field of computational biology. The 1<sup>st</sup> annual meeting is an opportunity to reflect on humbled

origins of the group and the history of student organizations in the Southeast. Our conference will offer undergraduate and graduate student poster sessions, workshops and invited keynote speakers:

- Dr. Valafar, Professor of Computer Science Engineering and Director SC-INBRE Cyber Infrastructure
- Dr. Jijun Tang, Professor of Computer Science
- Dr. Jiajun Hu, Professor & Director of Machine learning and Evolution Laboratory

**The symposium will be held at the University of South Carolina, Darla Moore School of Business, DMSB 124, 1014 Greene Street Columbia, SC 29208 (see map)**

We kick off the symposium on Friday, December 8, at 9:00 AM with welcoming remarks by Dr. Hardy, who will introduce the ISCB Regional Student Group-Southeast USA president Ms. Geetha Saarunya. Then we will hold a student poster session. After lunch, we have a series talks ranging from computational biology education to current research. Dr. Lasseigne will finish the day with results from the student poster session.

In the evening, undergraduate students, graduate students and professors can meet in an informal setting to establish relationships at the Cell Apoptosis Social. This is an ideal opportunity for undergraduate and graduate students, to talk about their research experiences.

We return Saturday, December 9 at 9:00 AM in the morning. We will have workshops on computational biology. After a lunch break, the symposium will resume at 1:00 pm with graduate and post-doctoral talks. Concluding remarks will be given by Dr. Hardy and Ms. Geetha Saarunya. We finish Saturday evening with symposium banquet.

## Schedule

The tentative schedule for the symposium is as follows:

### December 8th, 2017

#### 9:00 AM–9:20 AM *Welcoming Remarks*

Leon Hardy, University of South Florida St. Petersburg

#### 9:20 AM–9:30 AM *Daily Conference Overview*

Geetha Saarunya, University of South Carolina

**9:30 AM–10:00 AM *Computational Modeling of Proteins: Review of the past two decades and projection into the next decade*** by Dr. Valafar, Professor of Computer Science Engineering and Director SC-INBRE Cyber Infrastructure

**10:00 AM–10:15 AM *Break***

**10:15 AM–12:00 PM *Student Poster Session***

**12:00 PM–12:45 PM *Lunch Break***

**12:45 PM–1:00 PM *Session opening remarks***

**1:00 PM–1:15 PM *Education in computational biology: Perspectives on learning from an undergraduate level to postdoctoral studies*** by Dr. Bert Ely, Professor and Director of the Center for Science Education, University of South Carolina

**1:15 PM–1:40 PM *Bioinformatic analyses of Cervical Cancer*** by Dr. Buckhaults, Professor and Director of Cancer Genetics Laboratory

**1:40 PM–2:00 PM *Enhancement of spatial genomic data using deep convolutional neural network*** by Dr. Tang, USC.

**2:00 PM–2:15 PM *Break***

**2:15 PM–4:00 PM *A hands-on introduction to machine learning*** by Dr. Lasseigne, Senior Scientist, HudsonAlpha for Biotechnology.

**4:00 PM–4:30 PM *Transcription factor binding at high occupancy target (HOT) regions is driven by a small number of DNA sequence-specific interactions*** by Mr. Ramaker, MD/PhD Student at HudsonAlpha Institute for Biotechnology and UAB

**4:30 PM–4:50 PM *Phylogenetic Comparative Methods and Symbiotic Innovation in Cryptophyte Algae*** by Dr. Greenwold

**4:50 PM–5:15 PM *Results of the Poster Session & Concluding Remarks*** by Dr. Lasseigne, HudsonAlpha

**6:00 PM–8:00 PM *Cell Apoptosis Social***

### December 9th, 2017

**9:00 AM–9:10 AM *Daily Conference Overview*** by Ms. Geetha Saarunya, University of South Carolina

**9:10 AM–11:10 AM *Hands-on workshop for undergraduate and graduate students***

Leon Hardy, University of South Florida St. Petersburg

**11:10 AM–12:10 PM *Talks by graduate students***

**12:10 PM–1:00 PM *Lunch Break***

**1:00 PM–1:30 PM *Computational prediction of MHC-I protein-peptide binding using advanced deep learning techniques*** by Dr. Hu

**1:40 PM–3:40 PM *Hands-on Workshop on establishing bioinformatics pipeline for genetic analysis*** by Dr. Friedman

**3:45 PM–4:45 PM *Talks by post-doctoral scholars***

**4:45 PM–5:15 PM: *Concluding remarks*** by Dr. Hardy

**6:00 PM–8:00 PM *Symposium Banquet***

## Hotel Info

Accommodations for the symposium near the University of South Carolina:

### Hotel, Address & Phone

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**Columbia Marriott,  
1200 Hampton St.**

**803-771-7000 or 800-228-9290 (toll-free)**

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**Courtyard Marriott at USC,  
630 Assembly St.  
803-799-7800**

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**Hampton Inn & Suites,  
822 Gervais St.  
803-231-2000**

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**Hilton,  
924 Senate St.  
803-744-7800**

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**Hyatt Place,  
819 Gervais St.  
803-978-2013**

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